

NATIONAL WEATHER SERVICE  
BISMARCK, NORTH DAKOTA

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# DAKOTA SKIES

NWS Bismarck

Building a weather-ready nation

Spring 2013

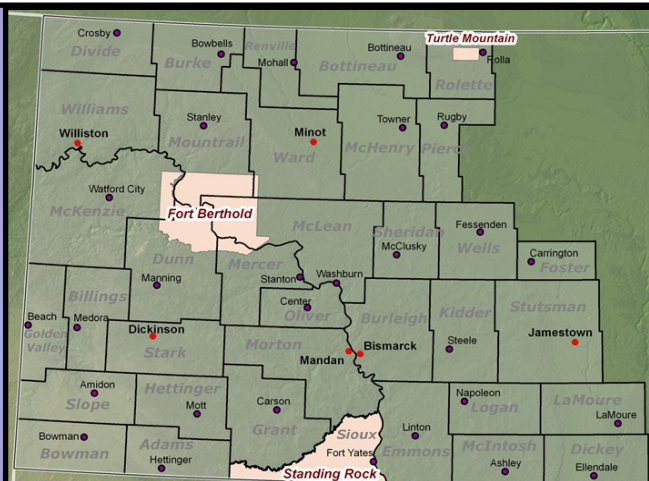
## Welcome Message

by Adam Jones

**Greetings!** Thank you for taking a stop by *Dakota Skies*. This is a semiannual newsletter produced each spring and fall by a team of employees at the National Weather Service (NWS) in Bismarck, ND.

In this edition you will find useful information to help prepare for the upcoming **severe summer weather season**. Additionally, there are interesting articles about **SkyWarn**, the **summer climate outlook**, a **summary of the past winter season**, **staff spotlights**, and **social media**.

For comments, suggestions, or to report severe weather, please call (701) 250-4224



Map of the NWS Bismarck County Warning Area (CWA). We issue watches, advisories, warnings and forecasts for 36 counties and three Tribal Nations in western and central North Dakota. The office is staffed 24 hours a day, seven days a week.

## Test Tornado Drill: May 1, 2013

by Tony Merriman



Tornado, Campo CO (Source: Mike Umscheid)

The test tornado drill for the entire state of North Dakota will be held on Wednesday, May 1<sup>st</sup> around 11:15am CDT. A test tornado warning will be issued by the National Weather Service in

Bismarck and Grand Forks. This test warning will alarm all NOAA Weather Radios and test the Emergency Alert System (EAS) and other communication systems. The level of participation in your community will be determined by your local officials, including whether or not the outdoor sirens will sound. Private companies and schools will also decide the level of participation for their respective facilities. **You are encouraged to use this drill to review your plans at home, work or school and practice seeking shelter in the event of an actual tornado.** A tornado safety checklist from the American Red Cross can be found here:

[http://www.redcross.org/images/MEDIA\\_CustomProductCatalog/m4340177\\_Tornado.pdf](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m4340177_Tornado.pdf)

**Severe Summer Weather Awareness Week: April 29 - May 3**  
by Michael Mathews

Winter cannot last forever (fingers crossed) and when it finally does end you will need to be ready for the severe weather that North Dakota's spring and summer have to offer. Every year, during Severe Summer Weather Awareness Week, we highlight the many different weather hazards that threaten central and western North Dakota. **Each day of this week we breakdown a specific weather hazard, and how you can better understand and protect yourself from it.**

**Monday, April 29:  
Severe Thunderstorms**

A severe thunderstorm produces **58 MPH or higher wind and/or hail of one inch in diameter (size of a quarter) or larger.** Threats associated with severe thunderstorms, in addition to damaging wind and large hail, include tornadoes, flash flooding, and lightning. The safest place to be when a thunderstorm is approaching is the lowest level of a sturdy building, away from windows.

**Tuesday, April 30th:  
Tornadoes**

**A tornado is a violently rotating column of air extending from a thunderstorm and in contact with the ground.** To distinguish tornadoes from funnel clouds or low clouds, look for a dust whirl or circulating debris on the ground. Tornadoes are divided into six categories based on the destruction they cause. Damage done by a weak EF0 tornado is associated with wind speeds of 65-85 MPH. Damage done by the most violent EF5 tornado is associated with wind speeds over 200 MPH. If a tornado is heading your way, get to a basement. If no basement is available, go to an interior room on the lowest level of the building. Also remember to always stay away from windows.

**Wednesday, May 1:  
Test Tornado Drill**

Notification of an approaching tornado can be received by a NOAA weather radio. NOAA Weather Radios are a reliable source for weather information all day, every day from your local National Weather Service (NWS) Forecast Office. Tornado warnings are just one of the many weather hazards received by NOAA Weather Radios. **A test tornado warning will be issued by the NWS around 11:15 am CDT on Wednesday, May 1st, 2013,** to test communication systems.

**Thursday, May 2:  
Lightning**

Lightning is the number two thunderstorm-related killer in the U.S. If you can hear thunder, you are close enough to the storm to be struck by lightning. If lightning threatens your area, get indoors and away from windows as soon as possible. Remember, **"When Thunder Roars, Go Indoors!"**

**Friday, May 3:  
Flooding**

**Floods and flash floods are the number one cause of weather-related deaths.** It only takes six inches of fast-moving water to knock you off your feet, and only two feet of water can cause a vehicle to float. Avoid walking or driving through flooded areas. Remember, **"Turn Around, Don't Drown."**

NOAA Weather Radio All Hazards acts as an alarm clock for severe weather. It alerts you immediately that a warning has been issued for your area.



***"The safest place to be when a thunderstorm is approaching is on the lowest level of a sturdy building, away from windows."***

**Severe Weather  
Risk Definitions**

**Outlook**

An outlook is used to indicate that a hazardous weather or hydrologic event may develop. It is intended to provide information to those who need considerable lead time to prepare for the event.

**Watch**

Issued when the risk of a hazardous event has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.

**Warning**

Issued when a hazardous event is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.

## Lightning Safety Tips



**Listen to NOAA Weather Radio** or other weather sources to keep up with changing weather conditions.

### **Remember your pets.**

Never leave an animal chained to a tree during a thunderstorm.

### **Do not wait for rain.**

Take shelter as soon as you hear thunder.

### **Get out of water!**

It is a great conductor of electricity.

### **Be the lowest point.**

Lightning strikes tall objects.

**Stay away from trees!** Keep twice as far from a tree as it is tall to avoid current traveling through the ground.

The **Enhanced Fujita Scale** is used to estimate the wind speeds inside a tornado based on the damage done by the tornado. The scale ranges from 0 to 5 with damage and wind speed ranging from minor and 65 mph to extreme and over 200 mph. After tornado damage is reported, a survey team will examine the damage to determine the tornado rating and then from that an estimate of wind speeds is determined. Most tornadoes in North Dakota are rated EF3 or lower.

*"Even an EF0  
tornado can be life  
threatening."*



Enhanced Fujita (EF) Scale		
EF Rating	3-Second Wind Gust (mph)	Common Damage
0	65-85	Small limbs broken
1	86-110	Trees uprooted or trunks snapped, roofs partially blown off
2	111-135	Complete destruction of mobile homes and small barns
3	136-165	Most walls of a home collapsed with roofs completely blown off, warehouses completely destroyed
4	166-200	Total destruction of small retail buildings
5	Over 200	Homes swept from foundation



## SkyWarn

by RP Kinney

**SkyWarn** is a program where the National Weather Service comes to your community and presents severe weather information. It's fun, educational, entertaining and **FREE!** Sessions last nearly two hours and pre-registration is not required.

The topics covered include, but are not limited to:

- Thunderstorm formation, structure, and strength
- Thunderstorm hazards like wind, hail, flash floods, tornadoes, and lightning
- Reporting severe weather to the NWS
- Safety Tips

After the class, participants can sign up to be an official SkyWarn storm spotter for the National Weather Service, and relay vital ground truth information about storms to warning forecasters. **Your commitment:**

- Proactive calls to the NWS when you observe significant weather.
- Expect an occasional call from the NWS during reasonable hours.

For the latest SkyWarn training calendar, go to the following web address. <http://www.crh.noaa.gov/bis/?n=skytrain>

More talks will be scheduled soon. An up-to-date training calendar can be found under the Top News of the Day headline at [weather.gov/bis](http://weather.gov/bis).



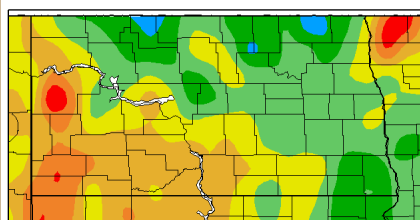
## Summary of Winter 2012-2013

by Patrick Ayd

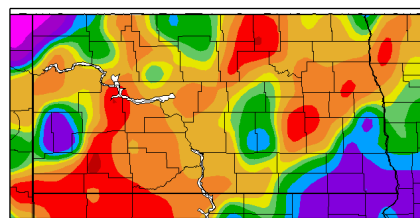
Certainly the winter of 2012-2013 was nowhere near a repeat of the dry and balmy winter western and central North Dakota saw last year.

In general, during the meteorological winter defined as December through February, temperatures ran one to three degrees above normal along and west of the Missouri River, and one to three degrees below normal across the northern and eastern portions of the state. This compares to widespread temperatures running six to eight degrees above normal for the same period last winter. In regards to precipitation, December through February of this winter saw less than normal precipitation amounts for much of the state, with the exception being the Souris and southern Red River basins. However, winter did not loosen its grip on North Dakota through March and April with much of the state seeing temperatures nine to fifteen degrees below normal. Just like the cold, the snow did not shut off in March or April either, with widespread above normal snow including the recording breaking snowstorm of April 14, 2013.

Departure from Normal Temperature (°F)  
12/1/2012 – 2/28/2013



Percent of Normal Precipitation (%)  
12/1/2012 – 2/28/2013

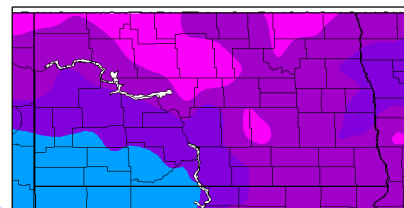


Percent of Normal Precipitation (%)  
12/1/2012 – 2/28/2013

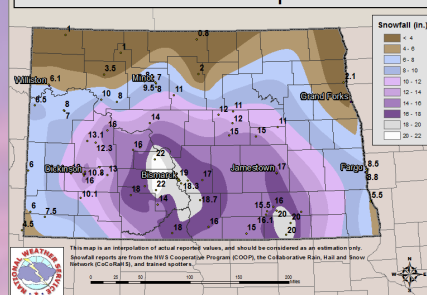
### Winter 2012-2013 Temperature and Precipitation Trends

In April, much of the state saw temperatures nine to fifteen degrees below normal.

Departure from Normal Temperature (°F)  
3/23/2013 – 4/21/2013



### Storm Total Snowfall April 13th-15th

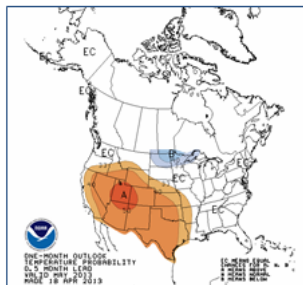


## Climate Outlook for May through July

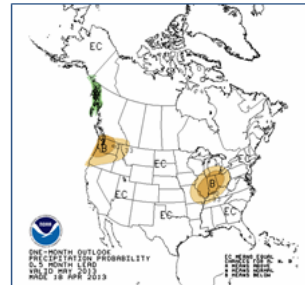
By Lindsay Tardif-Huber

What a difference a year can make! Old man winter has certainly reminded us of what winter can truly be like during the last few weeks! With a frigid and snowy spring, warmer and sunnier days must lay ahead, right? According to the latest monthly climate outlook issued on April 19, **North Dakota is favored to continue to see below normal temperatures and near normal precipitation through May.** This is due in part to the snowpack over the northeast part of the state and across southern Manitoba and southeast Saskatchewan. As long as this residual moisture from the snowpack remains in the soil, temperatures will be favored to be below normal. **Looking ahead into the summer,** for the three month period of May through July, **near normal temperatures and precipitation are favored for North Dakota.**

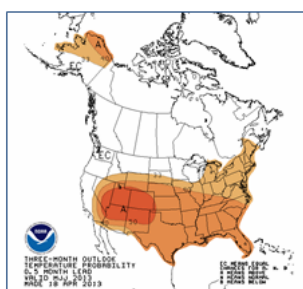
May 2013 Temperature Outlook



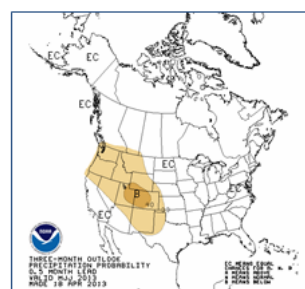
May 2013 Precipitation Outlook



May – July Temperature Outlook



May – July Precipitation Outlook



## Staff Spotlight: April Cooper

by April Cooper

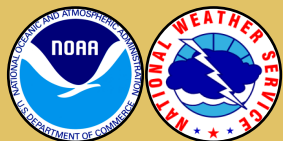


Hi, my name is April Cooper and I'm from Pearland, Texas. **I am the newest member at the National Weather Service in Bismarck, North Dakota.** Before arriving here, I spent eight years in the United States Air Force working as an electronic technician on weather systems. I am extremely proud to have had the opportunity to serve my country. After leaving the military, I completed a degree in Meteorology from the University of Utah in May 2012.

**Some important facts you may find interesting about me:** I love to take long naps, watch cartoons, eat Blue Bell ice cream, and listen to music. It's safe to say I'm pretty easy going.

This is my first time in North Dakota and so far

I've really enjoyed exploring Bismarck and meeting the people. I look forward to seeing the state in the light of summer.



**NATIONAL WEATHER SERVICE  
BISMARCK, NORTH DAKOTA**

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Dakota Skies Team**

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**National Weather Service Mission Statement:**

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.

**Brief National Weather Service History:**

The National Weather Service has its beginnings in the early history of the United States. Weather has always been important to the citizenry of this country, and this was especially true during the 17th and 18th centuries. The beginning of the National Weather Service we know today started on February 9th, 1870, when President Ulysses S. Grant signed a joint resolution of Congress authorizing the Secretary of War to establish a national weather service.

**Social Media at NWS Bismarck**

By Tony Merriman

**The National Weather Service in Bismarck is now on Facebook, Twitter, and YouTube.** Whether you are a Facebook fan, Twitter follower, or YouTube subscriber; you can now receive weather updates for western and central North Dakota through either one (or all three) social media outlets.

**Become a fan of our Facebook page** by navigating to <https://www.facebook.com/US.NationalWeatherService.Bismarck.gov> and clicking the "Like" button.

If you prefer to **follow us on Twitter**, navigate to <https://twitter.com/NWSBismarck> and click the "Follow" button.

To **subscribe to our YouTube channel**, navigate to <http://www.youtube.com/NWSBismarck> and click the "Subscribe" button.

Our goal is to not only better communicate weather information and impacts, but to also be more interactive with you, the people we serve. We always welcome real-time weather reports via Facebook comments, Twitter replies, or YouTube comments. We use your real-time field reports to gain a better understanding of the weather that is happening in your area. We integrate your reports into the forecasts with the goal of creating the best and most representative weather forecast for western and central North Dakota.

**Together we can provide the most up-to-date and accurate weather information.** Become a National Weather Service Bismarck social media fan today!

